

Bert W. King
24 Jones Avenue, Greenville, SC 29601

July 9, 2007

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
455 12th Street N.W.
Washington, DC 20005

Re: MB Docket No. 07-57

Dear Ms. Dortch:

I respectfully submit my comments for the Consolidated Application for Authority to transfer Control of XM Radio Inc. and Sirius Satellite Radio Inc.

Sincerely,

A handwritten signature in cursive script that reads "Bert W. King".

Bert W. King

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

)	
In the Matter of)	
)	
XM Satellite Radio Holdings Inc.,)	
Transferor)	
)	
and)	
)	MB Docket No. 07-57
Sirius Satellite Radio Inc.,)	
Transferee)	
)	
Consolidated Application for Authority to)	
Transfer Control of XM Radio Inc. and)	
Sirius Satellite Radio Inc.)	
)	

Comments of Bert W. King in Opposition to Transfer Application

Bert W. King
24 Jones Avenue
Greenville, SC 29601

1. Introduction and Summary

1. Based on the record before us, XM and Sirius have not demonstrated that this merger is in the public interest. Many of the purported benefits are not merger specific. Other purported benefits are so far out as not to be germane. Granting this transfer would likely undermine the Commission's long standing goals for competition for spectrum-based services, particularly in the SDARS market¹. The surviving entity would likely exercise both monopoly and monopsony power to the detriment of the consumer and terrestrial radio. Furthermore, the Commission should not reward the satellite radio providers for failing to implement the interoperable receiver requirement, nor should the commission allow them to waste spectrum.
2. For the foreseeable future, satellite radio only competes with satellite radio.
3. I urge the Commission to deny the transfer.

1.1 Product Market

4. In order to define the product market, it is first necessary to define satellite radio. Satellite radio is a satellite delivered, nationwide audio entertainment, sports and information, and ancillary service provider. As audio entertainment, the satellite radio provides a wealth of programmed and live music, comedy, and talk shows to drivers,

¹ See Hearing Designation Order in the matter of the EchoStar/DirecTV, CS Docket No. 01-348, dated October 18, 2002, and Paragraph 88, 'This Commission has a long-standing policy of promoting competition in the delivery of spectrum-based communications services and has implemented numerous measures to foster entry and ensure the availability of competitive choices in the provisioning of such services. For instance, in the DARS proceeding, the Commission established a licensing approach that provided for two DARS licensees because it determined that more than one DARS licensee was necessary "to ensure competitive rate, diversity of programming voices, and other benefits of a competitive DARS environment.'

home listeners, boaters, and aviation pilots and passengers. Sports and Information services includes live or near live events such as MLB, NFL, NBA, NHL, college sports, daily news, traffic and weather information for major cities, emergency alerts, and Amber alerts. Ancillary services include telematics for automobiles; detailed, location specific weather analysis for mariners, emergency responders, and aviation pilots as well as ordinary citizens with the latest portable weather-enabled GPS units; and backseat video. These latter services are distinct and generally require a separate payment or are provide by special agreement to OEMs.

5. From the above discussion, it can be seen that satellite radio can be divided into three product segments: audio entertainment, sports and information, and ancillary services.
6. XM and Sirius claim to compete with terrestrial radio, HD radio, internet radio, iPods and other mp3 players, CDs, and mobile phones.
7. In spite of this so called competition, XM was able to raise rates by a whopping 30% with impunity because its only competition is Sirius Satellite Radio. Mel Karmazin, the CEO of Sirius, has indicated several times that Sirius offers more premium content than XM and that there might be room for a price increase. There is little, other than XM that prevents Sirius from raising it prices.
8. Since XM and Sirius have failed to live up to the intent of interoperable requirement, both XM and Sirius have considerable market power today. Without interoperable equipment, it is simply too expensive to switch from XM to Sirius or visa versa.

9. Gary Parsons, Chairman of the Board for XM, has stated that for the OEMs, terrestrial radio is the primary competition, not Sirius. He says no one with a factory installed XM is going to pull out the XM radio and replace it with a Sirius, or visa versa. He is absolutely correct in this assertion. However, if XM and Sirius had lived up to the original intent of the interoperable agreement, then Sirius and XM would be primary competitors in the OEM market.
10. Both XM and Sirius say that there is no incentive for manufacturers to build the interoperable radios and the OEM's have no incentive to install them. This is a problem of their own making. They have both negotiated lucrative deals for the major OEMs to install radios exclusively. Once there are interoperable radios, it is no longer lucrative for the OEMs, so, of course, they do not want to install interoperable radios. At retail, no customer is going to pay extra to purchase a radio that is interoperable if he is force to one service or the other. The intent of the interoperable requirement, as I understand it, was for the satellite radio design their radios to be interoperable and to produce the chipsets in such quantity to make this feasible. To date, this has not happened. If a customer buys a Cadillac with a factory installed XM radio, he is stuck within. He can't have an integrated Sirius radio service.

Terrestrial Radio

11. It is true that XM and Sirius largely draw from the pool of terrestrial radio listeners for the audio entertainment segment, but the competition is one way. A consumer must elect to subscribe to satellite radio. They never have to choose terrestrial. It is always an option, an option without costs to them. They can have terrestrial and satellite radio. Satellite radio complements terrestrial much like bottled water does tap water. One can also

have tap water at little or no cost. One can make coffee in the morning, cook meals, and shower with tap water and still enjoy the convenience and perceived health benefits of bottled water. One can even drink tap water and enjoy bottled water. Many consumers are willing to pay more for bottled water than for gasoline because of the perceived benefits. Consumers of bottled water are drawn from the pool of tap water drinkers.

12. I don't think anyone would argue that bottled water is in the same relevant market as tap water. Yet, if the bottled water suppliers were to raise their prices past a certain point, bottled water drinkers would switch to tap water. The same goes for satellite radio; if they raised their prices to the point where it make sense to abandon their hardware, they might switch to terrestrial radio, but that would be more than a small but significant non-transitory increase in price.

13. In fact, studies show that subscribers to satellite radio continue to spend significant time listening to terrestrial radio. For some listeners, such as myself, terrestrial is not an option. Terrestrial radio has become too commercial ridden and is the same, worn out format no matter where one goes. Before satellite radio, I never listened to Jazz or Blues, simply because it was not available. With satellite radio, my listening habits have gone far beyond that. I find myself listening to an eclectic mix of artist on such channels as Hear Music on XM. Most of the artists I had never heard of prior to terrestrial radio. The diversity of audio entertainment just isn't there on terrestrial. The Department of Justice recently denied the merger between Staples and OfficeMax, stating as a reason that the two were the superstores of office supplies and, therefore, did not compete directly with the local outlets. Likewise, satellite radio is the superstore of audio entertainment and does not compete with the local, terrestrial radio stations.

14. On its [website](#), Sirius distinguishes itself from terrestrial radio by its commercial free music².
15. One of the big advantages of satellite radio is that it is nationwide. I can listen to my favorite stations no matter where I am, whether I am on the west coast or only 50 miles from home. Terrestrial radios generally fade out over a relatively short distance.
16. Satellite radio distinguishes itself in another very important way. I was in Orlando, Florida for the forth hurricane of the season there. Most all of the terrestrial forms of communication were down for at least a portion of the storm. My friend's battery powered satellite radio boombox never lost reception. This was an important advantage not lost on many during Hurricane Katrina. Satellite radio's satellites are immune to natural and manmade disasters on earth. It is something most subscribers do not think about, until they need it.
17. Terrestrial radio does not compete in the sports and information either. Sure, terrestrial radio has sports, but it generally covers local teams. After all, terrestrial radio has to fill its mission as a local provider. If I am on the west coast and want to listen to the Clemson Tigers play football on terrestrial radio, chances are I am out of luck. Satellite radio, being nationwide in scope, lets me listen to the games no matter where I am.
18. Terrestrial clearly does not compete in the ancillary service segment. They do not offer mariner, aviation, or emergency responder packages for location specific, on demand weather and traffic information.

² **2. How is your programming different from regular radio?** The biggest difference is that SIRIUS has [100% commercial-free music channels](#). What this means for you is that we offer you music the way it should be and the way the artist intended it: without a single commercial interruption.

19. Consumers are willing to pay for satellite radio when they could have terrestrial for free.

Manifestly, satellite radio clearly offers something that terrestrial can't. The converse is true as well; terrestrial offers local content that satellite radio can never provide. The two do not compete directly. Ultimately, if satellite radio raised prices high enough, subscribers would cancel their subscriptions and terrestrial radio would be a beneficiary; however, it was noted that XM increased prices 30% with little adverse effect. The price increase would have to be significant, considering the typical investment a subscriber might have in satellite radio. I have approximately a thousand dollars invested in hardware, including seven radios, a boombox, and other miscellaneous hardware. It is unlikely that any price increase contemplated by Sirius would be under a dollar (7%). A combined entity would certainly be able to command more.

20. In 2003, the Commission concluded that "satellite radio was not yet a good substitute for broadcast radio for most listeners."³ XM and Sirius tell us that their market is still tiny compared to terrestrial radio, even today, despite have several million more subscribers. I suspect that the Commission would come to the same conclusion today.

Internet Radio

21. Internet radio is limited competition to satellite radio and only competes in one of the three segments identified above. They do not compete with sports and information nor with the ancillary services. It is almost exclusively music.

³ See 47 CFR Part 73, Paragraph 167, "Similarly, satellite radio may be a substitute for broadcast radio for the fewer than 600,000 people that subscribe to satellite radio. But the vast majority of the population does not subscribe to a satellite radio service. Accordingly, the Commission concludes that satellite radio is not yet a good substitute for broadcast radio for most listeners.

22. Internet radio is largely PC based and is not yet suitable for widespread, mobile communications. WiMax holds a lot of promise in this area, but for the foreseeable future, there will not be ubiquitous coverage to compete on a nationwide basis. It is also relatively expensive, generally requiring the user to pay for access to bandwidth plus a subscription to a music service.
23. Satellite radio is primarily used in automobiles. There will always be areas that are not served by wireless internet access, a requirement for internet radio to compete in this area.
24. Internet radio does not have the content agreements such as Howard Stern, NFL, MLB, NBA, NHL, Oprah, Martha Stewart, Fox News, etc.
25. Internet radio cannot compete in the mobile market today or in the foreseeable future.
26. Internet radio does not offer the range of services provided by satellite radio.

HD Radio

27. Today, HD radio has very little market penetration. OEMs have little incentive to offer it. Consumers have little understanding about what HD radio is, many confusing it with satellite radio⁴. Many of the HD radio providers have colluded to offer the HD channels without commercials for a period of 18 months in order to entice customers. Eventually, HD radio will be laced with commercials much like its terrestrial counterpart.
28. HD radio has the potential to compete with satellite radio in all segments. Indeed, Bob Struble, CEO iBiquity, presented his view of the market to program directors at the 2005

NAB Radio Show⁵. Satellite Radio dominated the presentation, along with mentions of iPods and mp3 players. He showed a chart by SG Cowen showing the growth of satellite radio and the prediction of 50 million satellite radio subscribers by 2010. He showed what he referred to as local content the instant traffic and weather and navigation offered by satellite radio. He presented the sports and talk show programming that HD radio had to compete with. In slide 15, he showed a slide called, "Datacasting: Overlaying Real-Time Traffic is the First Important Application". It showed a Visteon HD navigation system. Slide 17 showed the second generation services such as time shifting, record button, instant traffic button, more information button, and a buy button.

29. There has been talk of offering a subscription based service and of providers combining to offer competition on a nationwide basis.

30. According to a [recent article](#), to date, there have been approximately 500,000 HD radio sold⁶. It is unknown how many of these might be in operation. HD Radio penetration is very small compared to satellite radio and is nearly non-existent when compared to terrestrial radio.

31. HD radio is the closest competition to satellite radio, and HD radio may compete some day, but for the next two or three years, HD radio will not have sufficient market penetration to be competitive. Nor is it assured that they will ever offer any of the above

⁴ See HD for PDs: A Program Director's Guide to HD Radio by Bob Struble, CEO iBiquity Digital, September 22, 2005, NAB Radio Show.

⁵ Idem

⁶ See Rocky Mountain news article, HD Radio Awaits Listeners, by Joyzelle Davis, July 9, 2007

services. Competition from HD radio is so far out, that it should be considered speculative at this point.

32. HD radio is local and will remain local for the foreseeable future and is, therefore, not a competitor to satellite radio on a nationwide scale.

iPods, mp3, and CD players

33. iPods and mp3 players are the modern CD players, the difference being their portability and the amount of storage. Many satellite radio subscribers such as myself also own iPods or mp3 players. The reason? They go where satellite radio can't: jogging, in the gym, on the airplane, at the office.

34. iPods and mp3 players are limited competition to satellite radio and only compete in one of the three segments identified above. They do not compete with sports and information nor with the ancillary services. It is almost exclusively music.

35. iPods and mp3 players lack programming and spontaneity found on satellite radio. It is this that separates satellite radio from iPods and mp3 players. Satellite radio is about discovery. Today, I listen to music I didn't know existed prior to satellite radio.

36. iPods and mp3 and CD's lack the diversity of satellite radio. XM boasts over 2.5 million [music titles](#)⁷. It would be prohibitively expensive for a satellite radio subscriber to substitute iPods or mp3 players and have a comparable selection of music. At 99 cents per song, an iPod user would have to spend nearly \$2,500,000 dollars to have access to a similar library of music.

⁷ XM's digital music library is among the world's largest - 2.5 million titles and counting.

37. iPods and mp3 players are not a viable substitute to satellite radio.

Mobile Phones

38. Mobile phones provide limited competition in two of the three market segments identified above. It does not compete with the ancillary services.

39. Presently, mobile phone service providers have limited content available. There is only so much bandwidth that they have available.

40. As most of us know, mobile phone service can be spotty. Calls are frequently dropped. Sometimes the service is not clear. The coverage is not ubiquitous. The same will be true with the next generation cellular service.

41. Many of the providers are turning to third party providers such as CrownCastle's Modeo service or Qualcomm's MediaFlo service. These services compete in both the audio and video market.

42. Mobile phones have a tiny part of the market and offer little competition to date.

1.2 Geographic Market

43. Sirius and XM clearly provide a nationwide service and are the only clear competitors to each other. In the event that the Commission takes a broader view of the competitive market, then it will be necessary to consider the local markets.

44. As suggested above, there are three product segments: audio entertainment, sports and information, and ancillary services.

Audio Entertainment, Sports, and Information

45. Audio entertainment, sports, and information is the primary services associated with satellite radio.
46. There are markets that have limited or no capacity, moderate capacity, and high capacity.
47. On behalf of Sirius and XM, John R. Woodbury recently gave testimony regarding a comparison of the top five “over-the-air” radio markets to the Copyright Royalty Board⁸. He identified 13 market segments. In these market formats, both XM and Sirius provided 12 of 13 formats. Between the two, they covered all 13 formats. Combined, they provide 300 channels: XM with 173; Sirius, 127. The most channel rich of the big five terrestrial radio market, Chicago, had 86 stations. The smallest, Dallas-Ft. Worth, had 67. The big five ranged from 8 to 11 of the formats identified by Mr. Woodbury. Only San Francisco had 11. Los Angeles had the fewest with 8. The rest had nine.
48. The two formats missing in all of the big five are Kids and Comedy. The other format noticeably missing, except for San Francisco, is Dance. Lifestyle channels were noticeably missing as well, except for San Francisco and New York. The Classical music market was well underserved, with only one station in each of the big five. XM and Sirius each have 3 channels.
49. The big five are the most richly served markets. While no data is available for the smaller markets, one might assume that the diversity in formats would be less.

⁸ See John R. Woodbury testimony on behalf of Sirius and XM before the Copyright Royalty Board in the matter of Adjustment of Rates and Terms for Preexisting Subscription Services and Satellite Digital Audio Services.

50. Clearly, if XM and Sirius combined, they would be a monopoly in the Kids and Comedy programming in most of the local markets across the United States.

51. Although it is purely subjective, San Francisco would seem to be the only geographical market that would approach high capacity, although it is missing two important formats and is lacking in Classical programming in comparison to satellite radio. The rest of the big five might be considered moderate capacity. One might conclude that there are very few high capacity markets. In other words, San Francisco may be the only terrestrial market remotely competitive with satellite radio.

52. One might arbitrarily pick 5 formats as areas considered as areas considered to have low or no capacity.

53. Even in the best of markets, a combination of XM and Sirius would cut the channel selection by 40%.

54. If the Commission accepts a broad definition of the markets, I would like to suggest to the Commission consider the markets with 5 or fewer formats as low capacity markets, those with 6 to 10 formats as moderate capacity markets, and those served by 11 or more formats as high capacity markets. Satellite radio would be considered high capacity. Few markets would be competitive.

Ancillary Services

55. The only known competition in ancillary services is between the satellite radio providers. Clearly, the combined entity would be a monopoly here.

2. Anticompetitive/Anticonsumer Effects

56. In the narrow sense, as I hope the Commission will agree, satellite radio only competes with satellite radio. Consequently, the merger of XM and Sirius will constitute a monopoly. One would expect a profit maximizing company to raise prices if it were advantageous to do so. With no place else for subscribers to go for a comparable service, the public will be at the mercy of the combined entity. We don't know if they will raise prices, but the incentives will be in its favor to do so.

57. Not only will the combined entity be a monopoly, but it will be a monopsony as well, creating a single buyer for satellite radio content. Satellite radio has already been able to steal the "King of All Media", Howard Stern, away from terrestrial radio for an unheard of \$500,000,000 for 5 years. A combined entity will have even more buying power. They will also be able to use the buyer power to drive down the cost of content, perhaps unfairly so. For example, both XM and Sirius carry college football today. They have to pay a fair price for this content. The combined company can simply tell them to take it or leave it. The colleges will have to take what they can get. Without competitive bidding, there will be no way to ensure that a fair price is paid for content in the future.

58. As a supplier of satellite radio receivers, US Electronics has expressed concern over the merger and how it will affect their business. The combined entity will have significantly more buying power to drive down the cost of producing the satellite radio receivers. It has the potential to drive some manufacturers out of business.

59. As outlined in a previous comment, customer service is also likely to suffer. XM is largely perceived to have inferior customer service. XM is the bigger of the two

companies. It doesn't have to try as hard to attract and maintain customers. My fear is that with a combined entity, we will see further degradation of customer service as it will have even less incentive to provide good service.

60. I don't expect that it will have any further anticompetitive impact on the OEM market.

There is a dearth of competition there today due to the exclusive contracts between the satellite radio providers and the OEMs. Unfortunately, the satellite radio providers did not live up to the original intent of the interoperable receiver requirement and the Commission, to the detriment of the consumer, has not seen fit to enforce this requirement. Today, if a consumer buys a GM, he cannot have the Sirius Satellite Radio without great expense. The same goes for a consumer who buys a Ford and prefers XM. Gary Parsons made this point precisely, as mentioned above, saying that terrestrial radio was the primary competition because no one was going to change a factory installed satellite radio. It wasn't intended to be this way.

61. The satellite radio providers lead us to believe that there will be greater innovation resulting from the merger. One would not expect this behavior from a profit maximizing entity. Indeed, what we hear from them is that they will retain the two systems for the foreseeable future, eventually eliminating the duplicative broadcast sometime well into the future. Not only is there no innovation, but there is a waste of bandwidth broadcasting more or less the same thing on the XM and Sirius band for the foreseeable future. Any promises of expanded programming should be disregarded as speculative and too far into the future to be applicable to the merger. If they had developed the interoperable receivers as required by the FCC, they could have immediately switched all subscribers over to one satellite band and worked on a receiver to take advantage to

the bandwidth that was freed up. They should not be allowed to waste bandwidth broadcasting the same thing on both the XM and Sirius band. They promise us now an interoperable radio now that it is to their advantage, not the consumers. Perhaps we will see a dual band radio, but that buys very little. In order to save programming costs, they will combine programming where they can, as they have already stated. The base programming will be more or less the same. Perhaps the specialize content such as the sports packages or Howard Stern may come available to all subscribers. Given their track record of developing and making available interoperable receivers, a promise of a dual band receiver should be considered speculative. Even if the Commission sees fit to mandate such a requirement, there is anecdotal evidence to suggest that it would be ignored if the combined entity did not see it as a benefit. It would seem that an interoperable or dual band receiver would terminate their exclusive contracts with the OEMs. It is likely that they would be pressured not to do so.

62. In any case, any non-specific innovation proffered by XM or Sirius should be dismissed as speculative. One would expect a profit maximizing entity to innovate when it is profitable to do so, not as a result of a merger.

63. If the Commission considers the market in a broader sense, there will still be anticompetitive effects. As outlined earlier from the John Woodbury testimony on the behalf of XM and Sirius in the oncoming rate hearing, a combined entity would cause the number of "channels" in the most channel rich market of Chicago to go from 386 channels to approximately 236 channels [subtracting the average number of satellite radio channels $(173 + 127)/2 = 150$]. That is nearly a 40% reduction in choice for consumers. The Kids and Comedy programming will be approximately halved and will

be a monopoly. Classical stations will go from 7 to 4, with 75% provided by satellite radio. In many smaller markets, satellite radio is the only choice for some formats. I know of no other choice for Blues programming in my own area. Today, where I have two choices, it will go to one, if the merger is approved.

64. When it comes to ancillary services, the combined entity will be a monopoly no matter how the market is defined. There is no service that can compete on a nationwide or local basis with the telematics provided to the OEMs, backseat video, and avionics, mariner, and emergency responder packages.

65. Garmin has expressed its concern over the merger and whether it might lose millions of dollars it has invested developing the XM based avionics weather receivers. The Sirius and XM formats are not the same. Which one will win out? Which manufacturers will suffer? Will consumers, after investing hundred if not thousands of thousand of dollars lose their investment? Satellite radio has not address these ancillary issues.

66. In its May 2007 issue, Powerboat Reports compared the XM and Sirius mariner packages. Although more expensive, XM was judged to be far superior. Will both packages continue? We don't know, but if the combined entity intends to save money by combining services where they can, one would expect such services to eventually be combined. If everyone is force to the XM system, they will pay more money. If they are force to the Sirius system, they will have an inferior service. Today, the customer can make that choice himself. It may be force upon him in the future.

3. Efficiencies

67. Although XM and Sirius do not give specifics on how much savings there might be in combining management, R&D, programming, studios, etc., rather relying on analyst estimates, there are no doubt efficiencies to be realized by combining the two companies. Whether it is ten's of millions or \$200-400 million as suggested by XM and Sirius is debatable. In perpetuity, these savings have the potential to approach a billion or more dollars. But these are not the kind of savings and efficiencies they could be achieving.

68. The real efficiencies are in combining the satellite radio satellite systems. XM recently replaced its satellites and Sirius must start replacing its satellites in a few years. Replacing the geosynchronous satellites will cost in the order of \$1 billion dollars alone, and this doesn't include the geostationary satellite they intend to place into orbit to complement the other satellites. It is my understanding that each company will continue to operate separate satellite and repeater systems for the foreseeable future.

69. Had Sirius and XM implemented interoperable receivers as mandated by the FCC, it would have been relatively simple to move to one satellite constellation. The combined entity could have switched all subscribers to one service or the other in relatively short order. This would have allowed them to use only one satellite constellation. They could have worked on the next generation receivers to make use of the bandwidth freed up by this consolidation. Granted, they couldn't combine all the content into one bandwidth, but they could likely juggle the programs around. For instance, Sirius has the NFL and XM has the MLB. They paid handsomely for this content and it wouldn't make sense to give either up. However, the seasons don't overlap, so it is possible to have both.

Maybe some channels would be lost, but overall, the consumer would benefit for having a greater diversity of programming, for example, a greater selection of sports where the seasons don't overlap. Sports and talk shows are much easier to integrate than the music channels due to the lower bit rate requirement.

70. Whether or not new satellites would be required to make use of the bandwidth is unknown; however, ITU filings seem to suggest the both satellite systems are capable of broadcasting from 2310-2360 MHz, more than enough to cover the entire satellite radio band (2320-2345 MHz).

71. This would have yielded a true benefit to the consumer, a near doubling of the available bandwidth in a relatively short time frame.

72. As it stands today, both XM and Sirius have promised that their subscribers can continue to use their radios for the foreseeable future. To do this, they have given every indication that they intend to continue operating two satellite and repeater systems.

73. They have indicated that they will combine programming where it makes sense. For example, if each has a similar rock channel, they might select the best and broadcast it on both systems.

74. It is highly inefficient use of a public resource to broadcast essentially the same thing in two different bands, but this appears to be their intention.

75. In addition, both have indicated that they will or have developed hierarchical modulation techniques to gain bandwidth efficiency. Sirius has already announced backseat video, for which they will apparently use 100% of this efficiency gain. XM has not announced

whether they have succeeded in developing this new technology or what they might do with it once they do. A combined entity may choose not to continue this development for the XM band. There is little incentive for it to do so. This would be another loss in efficiency.

76. If they could have freed up the bandwidth from one or the other of the services, they may have had a better opportunity to develop technology other technology such as cross – polarization, further increasing bandwidth efficiency.

3. Public Benefits

77. The purported public benefits are a la carte pricing, lower prices, more programming choices, acceleration of advance technology, interoperable receivers, dual mode receivers, and will ensure the future of satellite radio through cost savings.

78. A la carte pricing is not merger specific. Both companies could do this today. It is perhaps an incentive to get the merger approved and consistent with Commission policies, but it is not merger related and should be summarily dismissed.

79. Lower prices seem to assume that the subscriber already has both the XM and Sirius services and can pick and choose between the two. Indeed, this would be a benefit for the minority of subscribers. It is of no benefit to the typical subscriber who has only one radio installed in a car. There are some that would buy another radio if they could subscribe to both and pick and choose the content. It is still highly impractical until there is a dual mode receiver, a single receiver cable of receiving both services. The public benefit is almost nothing for the foreseeable future.

80. In the long run, when they are finally able to combine into one satellite constellation, there may be more programming choice and diversity. In the short run, there is no easy way to achieve it. Both services are out of bandwidth to support additional content. There are a few ways they can achieve this: codec efficiency, bit rate reduction, bandwidth efficiency, and non-overlapping sports programming. Great gains have been made in codec efficiency, but the gains are getting harder and harder to squeeze out. Bit rates have been squeezed so far that there is a thread dedicated to it on www.xm411.com. There is very little to be gained by the first two. Sirius claims a 25% gain in bandwidth efficiency using hierarchical modulation techniques. In addition, they state that 20% of their bandwidth will be used for backseat video. In other words, 100% of the gain will be used for backseat video $[(100\% + 25\%) \times 20\% = 25\%]$. There is nothing there. The sports programming without overlapping seasons can be made available to both, providing they can reach agreement with the content providers. Of course, they can increase program diversity by cutting something else. For example, they could implement an Asian music channel by cutting a rock channel. There is simply no room presently or in the foreseeable future to add significant musical content without cutting something else.

81. There is little incentive for the combined entity to provide advanced technology once they are the only player. True, there are advantages to standardization. However this is easier said than achieved. It would be more efficient to develop a common platform for such things as the avionics weather package. Garmin has already expressed concern over the millions of dollars that it has invested in the XM system. If it standardizes with the Sirius system, this investment could be lost. They will likely see opposition no matter

which direction they go. Boaters already have hundreds or thousands of dollars invested in the Sirius mariner platform. I am sure they will not like to change to another platform. It is highly speculative that there will be gains here.

82. Now that it is to their advantage, they are clamoring over the benefits of an interoperable radio. To my understanding, an interoperable radio can receive one service or the other, but not both. An interoperable radio is yet to be made available to the public and should be considered as speculative for the future.

83. There is no incentive to develop an interoperable radio for the OEMs or to the combined entity. An interoperable radio would likely nullify the existing, lucrative contracts for the OEMs. I suspect that the programming on the XM and Sirius band will be similar as they consolidate the programming. Consequently, there will be less advantage for a subscriber to be able to switch from one service to the other, once there merger occurs. But, IF in the unlikely event they were accepted by the OEMs, this would be some advantage to the consumer in the short run until the programming became similar. The only problem is that the OEMs can't gear up to accommodate a new radio in the short term. Effectively, it is not an advantage at all.

84. XM and Sirius seem to indicate that there will be incentives and subsidies for manufacturers to develop dual mode radios. This is highly speculative, especially given the present availability of interoperable radios. The OEMs certainly have no incentive to install dual mode radios while their lucrative contracts remain in force.

85. The merger may ultimately make for a more sound satellite radio company. However, neither XM nor Sirius are using the failing company doctrine for this merger. Both claim to be healthy companies.